

Remarks/Arguments

Claims 65-67, 69, 71-73, 75-76, 79, 81-86, 88-90 and 92-93 are pending in the above-captioned application. Claims 68, 70, 74, 77, 78, 80, 87, and 91 are cancelled without prejudice or disclaimer herein. Independent claims 65, 75 and 82 are amended herein to more particularly claim a desired embodiment of applicants' invention described, for example, at paragraph [0083] of the specification, related to the use of a sacrificial layer between the nanowire and electrode contact which sacrificial layer comprises a metal silicide to improve electrical contact between the nanowire and the electrode contact. Dependent claims 69, 79 and 88-90 have been amended to be in conformity with the amendments made to their corresponding independent claims from which they depend. New claims 92-93 have been added. These amendments and new claims introduce no new matter and support is replete throughout the specification (e.g., see paragraphs [0079] and [0083] of the specification). These amendments are made without prejudice to renewal of the claims in their original form and are not to be construed as abandonment or dedication of the previously claimed subject matter or agreement with any objection or rejection of record.

I. Information Disclosure Statement

Applicants thank the examiner for acknowledging the information disclosure statements submitted in this application. However, there is one additional statement which was filed May 20, 2004 which is not acknowledged. Applicants request that the examiner include such acknowledgment in the next communication regarding this application. If the examiner is unable to locate a copy of the statement, please contact the undersigned and we will provide a copy.

II. Power of Attorney

Applicants would like to point out that a new Power of Attorney was submitted in this case on September 24, 2005 along with a preliminary amendment.

Applicants request that the Power be made of record so that the proper party will receive official communications.

III. Rejection Under 35 U.S.C. §112, first paragraph

Claims 67, 74, 76, 80, 84-86, 89 were rejected under 35 U.S.C. §112, first paragraph, as based on a disclosure which is allegedly not enabling. Applicants respectfully traverse. With respect to pending claims 67, 76, 84-86 and 89, the examiner alleges that applicants do not appear to have support for the metal of the metal silicide being nickel, platinum, chromium, aluminum, copper, gold or tantalum. However, applicants point out that the specification of the instant application specifically discloses at paragraph [0079], for example, that it is well known that various metals such as those described above can be used as silicide materials to address contact resistance issues in semiconductor processing:

“Metals such as titanium, platinum, chromi[um]ng, aluminum, copper, gold etc. can be selected in conjunction with specific dopants in the silicon layer to produce a smaller barrier height. Additionally, the method of production of the junction can also influence the barrier height through its impact on the creation of silicides, etc. which, in turn, affect the material forming the junction. Thus, the silicon compound in the junction can be silicides such as, e.g., TiSi, PtSi, CoSi, NiSi, TaSi, etc. Such silicides can comprise a layer between the metal plate area and a silicon layer beneath. Those of skill in the art will be quite familiar with such materials and their influence on barrier heights at junctions.”

Accordingly, applicants request that this Section 112 rejection be withdrawn with respect to these claims.

With respect the examiner’s rejection of claim 80 herein, applicants’ cancellation of such claim in the present application renders moot the rejection of this claim herein.

IV. Rejection Under 35 U.S.C. §102(a) and §103(a)

Claims 65, 67-79, 82, 84, 89-89, and 91 were rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Li et al. (Adv. Mater. 2002) (“Li”). Claims 66, 83, and 86 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Li in view of Ozawa (U.S. Pat. 4,385,433) (“Ozawa”). Claim 80 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Li in view of Cui et al. (Science, 2001) (“Cui”) and Shimada et al. (U.S. Pat. 4,218,298) (“Shimada”). Claims 81 and 90 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Li in view of Cui. Claim 85 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Li in view of Scott (U.S. Pat. 4,476,482) (“Scott”).

As noted previously, independent claims 65, 75 and 82 have been amended herei to more particularly claim a desired embodiment of applicants’ invention described, for example, at paragraph [0083] of the instant specification, namely the use of a sacrificial layer between a nanowire and an electrode contact which sacrificial layer comprises a metal silicide to improve electrical contact between the nanowire and the electrode contact. See also new claims 92 and 93. It is nowhere seen in Li where there is a teaching or disclosure of a metal silicide sacrificial layer between the nanowire and electrode contact as instantly claimed. Accordingly, Li cannot form the basis of an anticipation rejection because each and every element of these independent claims is not disclosed in Li. With respect to the Examiner’s rejections of pending dependent claims 66-67, 69, 71-73, 76, 79, 81, 83-86, and 88-90 under Section 102 and/or Section 103, applicants note that each of these claims depend, directly or indirectly, from one of the allowable pending independent claims 65, 75 and 82 and should be allowable, for among reasons, their dependency from an allowable independent claim.

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Amnd dated December 7, 2006
Reply to Office Action of October 5, 2006

In view of the foregoing amendments and remarks, Applicants believe that the present application is in condition for allowance and action toward that end is respectfully requested. If the Examiner believes that a telephone interview would expedite the examination of this application, the Examiner is requested to contact the undersigned at the telephone number below.

Respectfully submitted,



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